



Grand Calumet River Restoration Fund Council

PUBLIC MEETING SUMMARY TUESDAY, JULY 15, 2003

1. Welcome and Introductions – Jim Smith, IDEM

Grand Calumet River Restoration Fund (GCRRF) Council members present (Jim Smith and Mary Ann Habeeb, IDEM; Wayne Faatz and Greg Ellis, IDNR; and Mike Mikulka, EPA) were introduced. Minutes from the June 15, 2003 meeting were distributed. Mr. Smith discussed postings on the web site on the IDEM server, and how it would be used and updated. A sign-in sheet was circulated. There were 17 members of the public present.

2. Consent Agreement and Use of Trust Fund Monies – Mary Ann Habeeb, IDEM

Ms. Habeeb explained the 2 purposes for the trust funds as identified in the consent agreement: sediment remediation in the West Branch west of Indianapolis Boulevard; and restoration of natural resources. No other uses are allowed.

Q&A related to Ms. Habeeb's presentation:

Monies cannot be used for Wolf Lake (question from Carolyn Marsh) or the larger Area of Concern.

Why was the larger area of concern mentioned in the consent agreement if the funds can only be used in the limited area? (Question from Paul Labus). Ms. Habeeb speculated that since other funds from other settlement agreements were envisioned, that the larger area was included. The larger area was incorporated from IDEM and EPA's NW IN Action Plan which had been finalized at that time.

Since at the last meeting, it was stated by a representative of Hammond Parks that the City, Parks Department and Sanitary District of Hammond had a plan for the West Branch, what impact will that have on the GCRRF decisions? (Carolyn Marsh). The Council will listen to any plans they have as members of the public, but are limited to spending trust fund monies as per the stated purposes in the consent agreement.

3. Identification of Restoration Alternatives with Focus on Treatment – Jim Smith, IDEM

In the presentation made at the June 16th meeting, six major areas to be evaluated by the Council were identified: no action; dredging; dredging and capping; in-situ remediation; sediment treatment (after dredging); and disposal. The purpose of the discussion today was to explore sediment treatment technologies in more detail.

The first handout was an excerpt from the Sediment Cleanup and Restoration Alternatives Project (SCRAP) prepared a few years ago for IDEM by the US Army Corps of Engineers. That plan divided the Grand Calumet River into reaches, with 3 of those reaches (Culverts, Hammond Sanitary District and Roxana Marsh) within the West Branch area being evaluated by the Council. The contaminated sediment volume within those 3 reaches was estimated at 1.6 million cubic yards (including Roxana Marsh). The cost of excavation and disposal of this amount of contaminated sediment would far exceed available trust fund monies.

The second handout was an outline of presentation made by Scott Cieniawski of EPA's Great Lakes National Program Office (GLNPO) on the effectiveness of sediment treatment technologies evaluated under the Assessment and Remediation of Contaminated Sediment (ARCS) Program. A large number of treatment technologies were screened by ARCS before deciding to do pilot testing on several of the more promising technologies. Those four technologies were evaluated in detail and a report on the effectiveness written. Mr. Cieniawski summarized the results in his paper. The four technologies were: Particle Size Separation which was evaluated for Saginaw Bay; Basic Extraction Solvent Technology (BEST) evaluated for the Grand Calumet River; Thermal Desorption evaluated for the Buffalo River; and Bioremediation evaluated for the Sheboygan River. The conclusion was that while each of these technologies could work under the right circumstances, the cost of each was significant, and then either main waste streams or side waste streams still had to be disposed of, at added cost. (It was cheaper to excavate the sediment and dispose them as is, without the added treatment step.) The only technology where cost savings might result was in particle size separation due to smaller disposal facility size.

Minergy Glass Furnace Technology was tested for effectiveness in January and August 2001, on sediments from the lower Fox River in Wisconsin, and a report is being prepared under EPA's Superfund Innovative Technology Evaluation program. A sediment dryer was tested in conjunction, as the sediment fed to the Minergy furnace needs to be greater than 90% solids. The PCB concentration was up to 36 mg/kg by weight. The theory is that at the furnace temperature of 2900 degrees F, the organic portion of the sediment is destroyed, while the inorganic portion is melted into glass which is being evaluated for beneficial reuse.

Another technology being evaluated is the Cement Lock Technology piloted in Detroit, MI on sediments from the Trenton Channel. This is being done by the Institute of Gas Technology. This type of process is described in a White Paper entitled Great Lakes Sediments: Contamination, Toxicity and Beneficial Re-Use commissioned by the Michigan Sea Grant program and the School for Natural Resources and the Environment dated September 2002.

The last handout was an excerpt from a Technical Note on Innovative Dredged Sediment Decontamination and Treatment Technologies presented at the International Navigation Association Specialty Workshop in Oakland, CA in May 2000. Table 1 of that document presents a summary of the costs and benefits of 8 decontamination/treatment technologies which have been demonstrated from bench scale (lightweight aggregate, electrochemical remediation) pilot scale (blended cement, glass aggregate, sediment washing) and full scale (building bricks, flowable fill, and solidification/stabilization).

The main question to the audience was do we focus on treatment (at a substantial cost to the Council, with little likelihood of success) or focus on removal/disposal?

A comment was made from the public that all we have been doing is talking and no action has occurred. The public wants action as fast as possible.

Another comment made was that the IHC is not being used, so it should be filled in as a cheaper alternative to remediation.

Mike Unger from HSD stated that the costs as presented by Jim Smith were reasonable estimates. They excavated the lagoons at HSD for \$10-15 per cubic yard, and disposal at the low end was about \$30 per cubic yard. If some can be beneficially used, that might reduce the costs.

Elizabeth McCloskey from US F&WS asked if phytoremediation can be used as piloted on the IHC by EPA? Jim Smith responded that this can be evaluated. He recently attended a phytoremediation conference in Chicago where use of Osage Orange, Mulberry, Willow and Poplar trees were being evaluated, primarily in upland soils areas.

4. Other Topics

It was pointed out to the group that Senators DeWine (R-OH) and Levin (D-MI) issued a press release on July 14, 2003, concerning their proposed legislation: the Great lakes Environmental Restoration Act. The Act, if approved by Congress, signed into law and then funded by Congress, would provide \$6 billion over 10 years to restore ecosystems, coordinate federal efforts and monitor restoration efforts. Other matching funds might be available through Water Resources Development Act or Great Lakes Legacy Act. It is the intent of the Council to develop restoration plans which would qualify the State (GCRRF Council) to access these restoration funds for implementation of the restoration plans. The sooner the restoration plans are developed, the sooner available monies can be accessed.

5. Next Meeting

The next meeting was scheduled for August 19, 2003, at the Hammond public library. Topic will include additional results from West Branch study and continuation of discussion on identification and development of restoration alternatives.